Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) An ultrasonic medical device comprising:

an ultrasonic probe comprising a proximal end, a distal end and a longitudinal axis therebetween; and

a transducer ~~creating~~ coupled to the ultrasonic probe, the transducer being configured to create a torsional vibration ~~of~~ along the ultrasonic probe~~;~~, the ultrasonic probe and the transducer being adapted so that the torsional vibration induces a transverse vibration along a portion of the ultrasonic probe.

~~a coupling engaging the proximal end of the ultrasonic probe to a distal end of the transducer; and~~

~~an ultrasonic energy source engaged to the transducer that produces an ultrasonic energy,~~

~~wherein an active area of the ultrasonic probe supports the torsional vibration and a transverse vibration.~~

2. (Cancelled)

3. (Currently Amended) The ultrasonic medical device of claim 1 wherein the ~~active area is~~ portion of the ultrasonic probe along which the transverse vibration is induced extends along at least a portion of the longitudinal axis of the ultrasonic probe.

4. (Original) The ultrasonic medical device of claim 1 wherein tension to the ultrasonic probe tunes the transverse vibration into coincidence with the torsional vibration.

5. (Original) The ultrasonic medical device of claim 1 wherein bending the ultrasonic probe tunes the transverse vibration into coincidence with the torsional vibration.

6. (Original) The ultrasonic medical device of claim 1 wherein bending the ultrasonic probe shifts a frequency of the ultrasonic probe causing the transverse vibration to coincide with the torsional vibration.

7. (Currently Amended) The ultrasonic medical device of claim 1 wherein the torsional vibration and the transverse vibration are superimposed ~~over~~ along the ~~active area~~ portion of the ultrasonic probe along which the transverse vibration is induced.

8. (Currently Amended) The ultrasonic medical device of claim 1 wherein the torsional vibration and the transverse vibration are segregated ~~over the active area of~~ along the ultrasonic probe.

9. (Currently Amended) The ultrasonic medical device of claim 1 wherein the torsional vibration of the ultrasonic probe produces a plurality of torsional nodes and a plurality of torsional anti-nodes along at least the ~~active area~~ portion of the ultrasonic probe along which the transverse vibration is induced.

10. (Currently Amended) The ultrasonic medical device of claim 1 wherein the torsional vibration of the ultrasonic probe causes a rotation and counterrotation along at least the ~~active area~~ portion of the ultrasonic probe along which the transverse vibration is induced.

11. (Currently Amended) The ultrasonic medical device of claim 1 wherein the torsional vibration of the ultrasonic probe is propagated in a forward direction and a reverse

direction about a plurality of nodes along at least the ~~active area~~ portion of the ultrasonic probe along which the transverse vibration is induced.

12. (Currently Amended) The ultrasonic medical device of claim 1 wherein, during use, the torsional vibration and the transverse vibration generate acoustic energy in a medium surrounding the ultrasonic probe through an interaction of a surface of the ultrasonic probe and the medium surrounding the ultrasonic probe.

13. (Currently Amended) The ultrasonic medical device of claim 1 wherein the transverse vibration of the ultrasonic probe produces a plurality of transverse nodes and a plurality of transverse anti-nodes along at least the ~~active area~~ portion of the ultrasonic probe along which the transverse vibration is induced.

14. (Currently Amended) The ultrasonic medical device of claim 1 wherein, during use, the torsional vibration generates acoustic energy in a medium surrounding the ultrasonic probe.

15. (Currently Amended) The ultrasonic medical device of claim 1 wherein, during use, the transverse vibration generates acoustic energy in a medium surrounding the ultrasonic probe.

16. (Currently Amended) The ultrasonic medical device of claim 1 ~~wherein the~~ further comprising an acoustic assembly ~~ultrasonic energy source delivers~~ configured to deliver ultrasonic energy in a frequency range from about 10 kHz to about 100 kHz.

17. (Currently Amended) The ultrasonic medical device of claim 1 ~~wherein the~~ further comprising an ~~ultrasonic~~ energy source configured to determine ~~determines~~ a resonant

frequency of the transducer and ~~provides an electrical power~~ to provide electrical energy to the transducer at the resonant frequency of the transducer.

18. (Original) The ultrasonic medical device of claim 1 wherein the ultrasonic probe has a flexibility allowing the ultrasonic probe to support the torsional vibration and the transverse vibration.

19. (Currently Amended) The ultrasonic medical device of claim 1 wherein the ultrasonic probe ~~comprises~~ has an approximately circular cross section from the proximal end of the ultrasonic probe to the distal end of the ultrasonic probe.

20. (Currently Amended) The ultrasonic medical device of claim 1 wherein the ultrasonic probe ~~comprises~~ has a varying diameter from the proximal end of the ultrasonic probe to the distal end of the ultrasonic probe.

21. (Currently Amended) The ultrasonic medical device of claim 1 wherein a portion ~~of the longitudinal axis~~ of the ultrasonic probe ~~comprises~~ has a radially asymmetric cross section.

22. (Currently Amended) The ultrasonic medical device of claim 1 wherein the ultrasonic probe ~~comprises~~ has a substantially uniform cross section from the proximal end of the ultrasonic probe to the distal end of the ultrasonic probe.

23. (Currently Amended) The ultrasonic medical device of claim 1 wherein the ultrasonic probe ~~comprises~~ has a varying cross section from the proximal end of the ultrasonic probe to the distal end of the ultrasonic probe.

24. (Currently Amended) A medical device comprising:

an elongated, flexible probe comprising a proximal end, a distal end and a longitudinal axis between the proximal end and the distal end;

a transducer coupled to the elongated, flexible probe, the transducer being ~~that converts electrical energy into mechanical energy creating~~ configured to create a torsional vibration along the longitudinal axis of the elongated, flexible probe when electrical energy is applied to the transducer, the elongate, flexible probe and the transducer being adapted so that the torsional vibration induces a transverse vibration along the longitudinal axis of the elongated, flexible probe.;

~~a coupling engaging the proximal end of the elongated, flexible probe to a distal end of the transducer; and~~

~~an ultrasonic energy source engaged to the transducer that provides the electrical energy to the transducer,~~

~~wherein the longitudinal axis of the elongated, flexible probe supports the torsional vibration and a transverse vibration.~~

25. (Cancelled)

26. (Original) The medical device of claim 24 wherein at least a portion of the longitudinal axis of the elongated, flexible probe supports the torsional vibration and the transverse vibration.

27. (Original) The medical device of claim 24 wherein tension to the elongated, flexible probe tunes the transverse vibration into coincidence with the torsional vibration.

28. (Currently Amended) The medical device of claim 24 wherein the torsional vibration and the transverse vibration are superimposed ~~over~~ along the longitudinal axis of the elongated, flexible probe.

29. (Currently Amended) The medical device of claim 24 wherein the torsional vibration and the transverse vibration are segregated ~~over~~ along the longitudinal axis of the elongated, flexible probe.

30. (Currently Amended) The medical device of claim 24 wherein the elongated, flexible probe ~~comprises~~ has a substantially uniform diameter from the proximal end of the elongated, flexible probe to the distal end of the elongated, flexible probe.

31. (Currently Amended) The medical device of claim 24 wherein the elongated, flexible probe ~~comprises~~ has a varying diameter from the proximal end of the elongated, flexible probe to the distal end of the elongated, flexible probe.

32. (Original) The medical device of claim 24 wherein the elongated, flexible probe is disposable.

33. (Currently Amended) The medical device of claim 24 wherein the elongated, flexible probe is constructed for a single use on a single patient.

34. (Currently Amended) A method ~~of treating a biological material in a body with an ultrasonic medical device~~ comprising:

~~providing the~~ an ultrasonic medical device ~~comprising an ultrasonic probe having a proximal end, a distal end and a longitudinal axis therebetween;~~

moving ~~the~~ an ultrasonic probe to a treatment site ~~of the biological material to place~~ in a body such that the ultrasonic probe is in communication with ~~the~~ a biological material; and

~~activating an ultrasonic energy source engaged to the ultrasonic probe to produce an ultrasonic energy that is converted into~~ producing a torsional vibration of along the ultrasonic probe, the torsional vibration inducing a transverse vibration in a portion of the ultrasonic probe; ~~and~~

~~vibrating an active area of the ultrasonic probe.~~

35. (Cancelled)

36. (Currently Amended) The method of claim 34 wherein the ~~active area~~ portion of the ultrasonic probe in which the transverse vibration is induced supports the torsional vibration and a the transverse vibration.

37. (Currently Amended) The method of claim 34 further comprising tuning the transverse vibration into coincidence with the torsional vibration along the ~~active area~~ portion of the ultrasonic probe in which the transverse vibration is induced.

38. (Original) The method of claim 34 further comprising applying a tension to the ultrasonic probe to tune the transverse vibration into coincidence with the torsional vibration.

39. (Original) The method of claim 34 further comprising bending the ultrasonic probe to tune the transverse vibration into coincidence with the torsional vibration.

40. (Currently Amended) The method of claim 34 further comprising superimposing the torsional vibration and the transverse vibration ~~over~~ along the ~~active area~~ portion of the ultrasonic probe in which the transverse vibration is induced.

41. (Currently Amended) The method of claim 34 further comprising segregating the torsional vibration and the transverse vibration ~~over the active area of~~ along the ultrasonic probe.

42. (Currently Amended) The method of claim 34 ~~further comprising creating~~ wherein the torsional vibration ~~along at least the active area of the ultrasonic probe~~ is produced

by a transducer ~~engaging the ultrasonic energy source at a proximal end of the transducer and~~ coupled to the ultrasonic probe ~~at a distal end of the transducer~~.

43. (Currently Amended) The method of claim 34 further comprising generating acoustic energy in a medium surrounding the ultrasonic probe through an interaction of a surface of the ultrasonic probe and the medium surrounding the ultrasonic probe resulting from the torsional vibration and a the transverse vibration.

44. (Currently Amended) The method of claim 34 further comprising producing a plurality of nodes and a plurality of anti-nodes along at least the ~~active area~~ portion of the ~~longitudinal axis of the~~ ultrasonic probe in which the transverse vibration is induced ~~from the torsional vibration~~.

45. (Currently Amended) The method of claim 34 further comprising producing a plurality of transverse nodes and a plurality of transverse anti-nodes along at least the ~~active area~~ portion of the ~~longitudinal axis of the~~ ultrasonic probe in which the transverse vibration is induced ~~from the transverse vibration~~.

46. (Currently Amended) The method of claim 34 further comprising producing a rotation and counterrotation of the ultrasonic probe along at least the ~~active area~~ portion of the ultrasonic probe in which the transverse vibration is induced.

47. (Original) The method of claim 34 further comprising projecting the torsional vibration in a forward direction and a reverse direction about a plurality of nodes of the ultrasonic probe.

48. (Currently Amended) The method of claim 34 further comprising sweeping the ultrasonic probe along the treatment site ~~of the biological material~~.

49. (Currently Amended) The method of claim 34 further comprising moving the ultrasonic probe back and forth along the treatment site ~~of the biological material~~.

50. (Currently Amended) The method of claim 34 further comprising rotating the ultrasonic probe along the treatment site ~~of the biological material~~.

51. (Currently Amended) The method of claim 34 further comprising delivering ultrasonic energy to the ultrasonic probe in a frequency range from about 10 kHz to about 100 kHz ~~by the ultrasonic energy source~~.

52. (Currently Amended) The method of claim ~~34~~ 42 further comprising determining ~~the~~ a resonant frequency of the transducer and providing ~~an electrical power~~ electrical energy to the transducer at a the resonant frequency of the transducer ~~of the ultrasonic medical device~~.

53. (Original) The method of claim 34 further comprising providing the ultrasonic probe having a flexibility allowing the ultrasonic probe to support the torsional vibration and the transverse vibration.

54. (Currently Amended) The method of claim 34 wherein the ~~active area is~~ portion in which the transverse vibration is induced extends along at least a portion of the longitudinal axis of the ultrasonic probe.

55. (Currently Amended) A method ~~of removing a biological material in a body~~ comprising:

~~providing an ultrasonic medical device comprising a flexible probe having a proximal end, a distal end and a longitudinal axis between the distal end and the proximal end;~~

~~moving the flexible probe in the body and~~ placing ~~the~~ an ultrasonic probe in communication with ~~the~~ a biological material in a body; and

activating an ~~ultrasonic~~ energy source ~~of the ultrasonic medical device~~ to produce an electric signal that drives a transducer ~~of the ultrasonic medical device~~ coupled to the ultrasonic probe to produce a torsional vibration along a portion ~~of the longitudinal axis~~ of the flexible probe, the torsional vibration inducing a transverse vibration along the longitudinal axis of the flexible probe.

56. (Cancelled)

57. (Original) The method of claim 55 further comprising applying a tension to the flexible probe causing the transverse vibration to tune into coincidence with the torsional vibration.

58. (Original) The method of claim 55 further comprising bending the flexible probe causing the transverse vibration to tune into coincidence with the torsional vibration.

59. (Currently Amended) The method of claim 55 further comprising superimposing the torsional vibration and the transverse vibration ~~over~~ along the longitudinal axis of the flexible probe.

60. (Currently Amended) The method of claim 55 further comprising segregating the torsional vibration and the transverse vibration ~~over~~ along the longitudinal axis of the flexible probe.

61. (Original) The method of claim 55 further comprising generating acoustic energy in a medium surrounding the ultrasonic probe through an interaction of a surface of the

ultrasonic probe and the medium surrounding the ultrasonic probe resulting from the torsional vibration and a transverse vibration.

62-74. (Cancelled)

75. (New) The ultrasonic medical device of claim 1 wherein the ultrasonic probe has a first region having a first diameter and a second region having a second diameter that is smaller than the first diameter.

76. (New) The ultrasonic medical device of claim 75 wherein the ultrasonic probe has a tapered transition between the first and second regions.

77. (New) The ultrasonic medical device of claim 75 wherein the ultrasonic probe has a third region having a third diameter that is smaller than the second diameter.

78. (New) The medical device of claim 24 wherein the elongate, flexible probe has a first region having a first diameter and a second region having a second diameter that is smaller than the first diameter.

79. (New) The medical device of claim 78 wherein the elongate, flexible probe has a tapered transition between the first and second regions.

80. (New) The medical device of claim 78 wherein the elongate, flexible probe has a third region having a third diameter that is smaller than the second diameter.

81. (New) The method of claim 34 wherein the ultrasonic probe has a first region having a first diameter and a second region having a second diameter that is smaller than the first diameter.

82. (New) The method of claim 81 wherein the ultrasonic probe has a tapered transition between the first and second regions.

83. (New) The method of claim 81 wherein the ultrasonic probe has a third region having a third diameter that is smaller than the second diameter.

84. (New) The method of claim 55 wherein the ultrasonic probe has a first region having a first diameter and a second region having a second diameter that is smaller than the first diameter.

85. (New) The method of claim 84 wherein the ultrasonic probe has a tapered transition between the first and second regions.

86. (New) The method of claim 84 wherein the ultrasonic probe has a third region having a third diameter that is smaller than the second diameter.